AFQTP 3E2X1-18
4 APRIL 2003
OPTIONAL

AIR FORCE

QUALIFICATION TRAINING PACKAGE (AFQTP)

FOR

PAVEMENTS AND CONSTRUCTION EQUIPMENT OPERATOR

(3E2X1)

MODULE 18

LIQUID MATERIAL DISTRIBUTORS

THE USE OF THIS AFQTP IS **OPTIONAL**.
RECOMMEND TRAINERS USE AS A LESSON PLAN WHEN TRAINING PERSONNEL ON THESE TASKS.

TABLE OF CONTENTS

MODULE 18

LIQUID MATERIAL DISTRIBUTORS

Career Field Education and Training Plan (CFETP) references from 5 August 2002 version.

OPR: HQ AFCESA/CEOF
(SMSgt James R. Faulkner)
Supersedes AFQTP 3E2X1-18, 5 Aug 02

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Pages: 28/Distribution F

AIR FORCE QUALIFICATION TRAINING PACKAGES

FOR

PAVEMENTS AND CONSTRUCTION EQUIPMENT OPERATOR
(3E2X1)

INTRODUCTION

Before starting this AFQTP, refer to and read the "AFQTP Trainer/Trainee Guide."

AFQTPs are mandatory and must be completed to fulfill task knowledge requirements on **core** and **diamond tasks** for upgrade training. ***It is important for the trainer and trainee to understand*** that an AFQTP ***does not*** replace hands-on training, nor will completion of an AFQTP meet the requirement for core task certification. AFQTPs will be used in conjunction with applicable technical references and hands-on training.

AFQTPs and Certification and Testing (CerTest) must be used as minimum upgrade requirements for Diamond tasks.

MANDATORY minimum upgrade requirements:

Core task:
AFQTP completion
Hands-on certification

Diamond task:
AFQTP completion
CerTest completion (80% minimum to pass)

Note: *Trainees will receive hands-on certification training for Diamond Tasks when equipment becomes available either at home station or at a TDY location*.

Put this package to use. Subject matter experts under the direction and guidance of HQ AFCESA/CEOF revised this AFQTP. If you have any recommendations for improving this document, please contact the Career Field Manager at the address below.

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Notice. This AFQTP is *NOT* intended to replace the applicable technical references nor is it intended to replace hands-on training. It is to be used in conjunction with these for training purposes only.

WATER DISTRIBUTOR

MODULE 14 AFQTP UNIT 1

PERFORM OPERATIONAL CHECKS (18.2.1.)

Notice. This AFQTP is *NOT* intended to replace the applicable technical references nor is it intended to replace hands-on training. It is to be used in conjunction with these for training purposes only.

PERFORM OPERATIONAL CHECKS

Task Training Guide

STS Reference Number/Title:	18.2.1. - Perform operational checks on water distributor.
Training References:	1. Career Development Course (CDC) Pavements and Construction Equipment Operator Journeyman 3E251B, Volume 1; Unit 1, Section 1-5, Lesson 009; *Water Distributor Operations.* 2. Technical Order (TO) 36C5-3-23-41, *Truck, Tank 1500 Gallon; 6 X 4, Water Distributor.* 3. Air Force Joint Manual (AFJMAN) 24-306, Manual for the Wheeled Vehicle Driver. 4. AF Form 1806, *Operator's Inspection Guide and Trouble Report (Aircraft Towing, Base Maintenance Deicers, High Reach and Snow Removal).* 5. Owner's manual. 6. Local procedures.
Prerequisites:	1. **Possess a minimum of a 3E231 AFSC.** 2. **Review the following references:** 2.1. CDC Pavements and Construction Equipment Operator Journeyman 3E251B, Volume 1, Unit 1, Section 1-5, Lesson 009. 2.2. TO 36C5-3-23-41. 2.3. AFJMAN 24-306, Chapter 1, page 1-6; *Driver Responsibilities* and Chapter 15, page 15-1; *Inspections.* 2.4. AF Form 1806. 2.5. Owner's manual. 2.6. Local procedures.
Equipment/Tools Required:	1. Water distributor. 2. Personal safety equipment. 3. AF Form 1806.
Learning Objective:	The trainee will be able to perform operational checks on a water distributor.
Samples of Behavior:	The trainee will demonstrate the proper procedures for operational checks.
Notes:	
1. This area is **optional** and available to use as a lesson plan when training on this non-core task. 2. Personnel are **required** to wear all *personal protective equipment* pertaining to each task (i.e. work gloves, hearing protection, and safety goggles). 3. Any safety violation is an **automatic failure**.	

PERFORM OPERATIONAL CHECKS

1. Background. The U. S. Air Force has many different types of water distributors. All are designed to transport and distribute water. Specific pre-operational inspection procedures can be found in the owner's manual that accompanied the equipment. It is important to properly check and service the equipment prior to operation. Failure to do so may result in damage or injury.

2. Operational Check Procedures. Follow these steps to perform operational checks on water distributor:

Step 1: Utilizing AF Form 1806.

1.1. Check all items listed that pertain to the specific equipment you are inspecting.

1.2. Sign the AF form 1806 after you properly inspect your equipment.

Step 2: Inspect Vehicle Exterior. Inspection of the vehicle exterior begins with a 360-degree walk-around looking for damage and leaks.

2.1. Check wheels/tires for wear, lug-nut tightness, and correct air pressure.

2.2. Check mirrors and windows for cleanliness and cracks.

2.3. Check lights and safety devices.

2.4. Note any discrepancies on the AF form 1806 and notify supervisor.

HINT:

Puddles of fluid and dirty areas on the engine or ground normally indicate problem areas and should be investigated prior to operating.

Step 3: Inspect Drive Engine/Battery Compartments.

3.1. Check engine oil, coolant, brake, power steering, and transmission fluid levels and fill as needed.

3.2. Inspect the drive belts for wear, tension, and alignment.

3.3. Ensure battery connections are secure and free from corrosion.

3.4. Start engine and let idle. Look for oil and water leaks.

Step 4: Inspection of Liquid Material Distributor Unique Items. The following items are unique to the water distributor and not listed on the AF Form 1806; add these items in the spaces provided for additional items.

4.1. Check the water tank for rust, cracks, and leaks.

4.2. Check the water pump for cracks and leaks.

4.3. Check the spray bar assembly for clogged nozzles and cracks.

4.4. Check all valves and hoses for cracks, leaks, wear, and operability.

Step 5: Inspect Auxiliary Engine.

5.1. Check the engine oil, fuel, and coolant for proper levels.

5.2. Inspect the drive belts for wear, tension, and alignment.

5.3. Ensure battery connections are secure and free from corrosion.

5.4. Inspect the exhaust system for serviceability.

REVIEW QUESTIONS
FOR
PERFORM OPERATIONAL CHECKS

QUESTION	ANSWER
1. Check wheels and tires for _____.	a. wear b. lug-nut tightness c. correct air pressure d. All the above
2. Before you operate any piece of equipment, you must inspect it for _____.	a. signs of damage or possible defects. b. color. c. federal regulations. d. tire size.
3. You must use a checklist to do your inspections. The one most often used for water distributors is _____.	a. AF Form 2209. b. AF form 373. c. AF Form 1806. d. AF Form 332.
4. Walk-around inspections only include detecting leaks, broken or missing items, and flat tires.	a. True. b. False.
5. Which of the following item is not unique to the water truck?	a. Water tank. b. Water pump. c. Water bucket. d. Water spray bar.

PERFORM OPERATIONAL CHECKS

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must satisfactorily perform all parts of the task without assistance. Evaluate the trainee's performance using this checklist.

DID THE TRAINEE….	YES	NO
1. utilize AF Form 1806?		
2. inspect vehicle exterior by: 2.1. completing a 360 degree walk around? 2.2. checking tires lug nuts and air pressure? 2.3. checking lights and safety devices?		
3. inspect drive engine/battery compartment by checking: 3.1. engine oil, brake, coolant, and transmission fluid levels (if applicable) and fill as needed? 3.2. engine drive belts for wear, tension, and alignment? 3.3. battery connections for tightness and free of corrosion? 3.4. for leaks after starting engine?		
4. inspect unique items by checking: 4.1. water tank for rust, cracks, and leaks? 4.2. water pump for cracks and leaks? 4.3. spray bar assembly for clogged nozzles and cracks? 4.4. valves and hoses for cracks, leaks, wear, and operability?		
5. inspect auxiliary engine by checking: 5.1. engine oil, brake, coolant, and transmission fluid levels (if applicable) and fill as needed? 5.2. engine drive belts for wear, tension, and alignment? 5.3. battery connections for tightness and free of corrosion? 5.4. exhaust system for serviceability?		
6. sign AF form 1806?		
7. comply with all safety requirements?		

FEEDBACK: Trainer/Certifier should provide both positive and/or negative feedback to the trainee immediately after the task is performed. This will ensure the issue is still fresh in the mind of both the trainee and trainer/certifier.

WATER DISTRIBUTOR

MODULE 18 AFQTP UNIT 2

PERFORM OPERATOR MAINTENANCE (18.2.2.)

Notice. This AFQTP is *NOT* intended to replace the applicable technical references nor is it intended to replace hands-on training. It is to be used in conjunction with these for training purposes only.

PERFORM OPERATOR MAINTENANCE

Task Training Guide

STS Reference Number/Title:	18.2.2. - Perform operator maintenance on a water distributor.
Training References:	1. Career Development Course (CDC) Pavements and Construction Equipment Operator Journeyman 3E251B, Volume 1; Unit 1, Section 1-5, Lesson 009; *Water Distributor Operations.* 2. Technical Order (TO) 36C5-3-23-41, *Truck, Tank 1500 Gallon; 6 X 4, Water Distributor.* 3. Air Force Joint Manual (AFJMAN) 24-306, Manual for the Wheeled Vehicle Driver. 4. AF Form 1806, *Operator's Inspection Guide and Trouble Report (Aircraft Towing, Base Maintenance Deicers, High Reach and Snow Removal).* 5. Owner's manual. 6. Local procedures.
Prerequisites:	1. **Possess a minimum of a 3E231 AFSC.** 2. **Review the following references:** 2.1. CDC Pavements and Construction Equipment Operator Journeyman 3E251B, Volume 1, Unit 1, Section 1-5, Lesson 009. 2.2. TO 36C5-3-23-41. 2.3. AFJMAN 24-306, Chapter 1, page 1-6; *Driver Responsibilities* and Chapter 15, page 15-1; *Preventive Maintenance.* 2.4. AF Form 1806. 2.5. Owner's manual. 2.6. Local procedures.
Equipment/Tools Required:	1. Water distributor. 2. Personal safety equipment. 3. AF Form 1806.
Learning Objective:	The trainee will be able to properly perform operator on a water distributor.
Samples of Behavior:	The trainee will demonstrate how to perform operator maintenance on a water distributor.
Notes:	
1. This area is **optional** and available to use as a lesson plan when training on this non-core task. 2. Personnel are **required** to wear all *personal protective equipment* pertaining to each task (i.e. work gloves, hearing protection, and safety goggles). 3. Any safety violation is an **automatic failure**.	

PERFORM OPERATOR MAINTENANCE

1. Background. Liquid material distributor maintenance, like any other maintenance, is very important. If the machine is not running properly, then how is the job going to get done? The more effective maintenance program we have for the equipment, the better our operation will run.

2. Maintenance Program. Correct and timely operator maintenance ensures equipment will do the job when needed and last longer saving the Air Force needless expenditure. A good operator maintenance program includes inspections to detect and correct minor deficiencies before they develop into major defects resulting in costly repairs. This also includes cleaning and servicing. Poor maintenance will not result in mission success.

3. Operator Maintenance Procedures. Follow these steps to perform operator maintenance:

> **NOTE:**
> Always consult owner's manual for your specific vehicle.

Step 1: Cleaning. Keep the vehicle clean.

1.1. Remove trash and dirt from the vehicle. Find lubrication points from the lube charts.

1.2. Inspect the water truck for damaged or loose bolts.

Step 2: Lubrication.

2.1. Lubricate the vehicle according to intervals listed in the maintenance chart. When operating the machine in severe conditions, lubricate the machine more frequently.

2.2. Remove all dirt and grease from the grease fittings before and after lubricating

Step 3: Refueling.

3.1. Fuel the equipment **at the end of each working day** to prevent moisture from condensing and forming droplets within the fuel tank.

3.2. Contact base fuels for delivery of fuel to the job site if the equipment can't be driven to the service station. Ensure the correct tank is filled with the correct fuel.

3.3. Ensure the vehicle has a minimum of ¾ of a tank of fuel at the end of the duty day to ensure the equipment will be ready for any emergencies.

Step 4: Post Operation Inspection. As stated in operational checks, inspection is the best way to ensure that you give the proper care to your equipment. A short post operation inspection will ensure the equipment is ready for the next task. Air intake filters are of special importance. There are generally two elements: (1) the primary (outer) element and, (2) the secondary (inner) element.

4.1. Clean both elements daily under dusty operating conditions (even more often if working conditions are extremely dusty).

4.2. Use guidelines stated in the operator's maintenance manual for cleaning procedures.

REVIEW QUESTIONS
FOR
PERFORM OPERATOR MAINTENANCE

QUESTION	ANSWER
1. Why is cleaning an important part of vehicle maintenance?	a. Reflects pride and professionalism. b. It is required by AF Form 1806. c. Enables you to find lubrication points from the lube charts. d. It isn't.
2. Lubrication should be accomplished on the same schedule no matter what conditions the equipment is operated in.	a. True. b. False.
3. Why should you refuel the vehicle at the end of the day?	a. So you will not run out of fuel. b. To prevent condensation inside the fuel tank. c. To make the boss happy. d. To prevent the fuel pump from shorting out.
4. You should perform a post operational inspection?	a. True. b. False.

PERFORM OPERATOR MAINTENANCE

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must satisfactorily perform all parts of the task without assistance. Evaluate the trainee's performance using this checklist.

DID THE TRAINEE….	**YES**	**NO**
1. lubricate the water distributor according to the maintenance chart?		
2. remove all the dirt and grease from the grease fittings before and after lubricating?		
3. check the fuel level and refuel if needed?		
4. inspect and clean the air intake breathers if needed?		
5. clean the vehicle?		
6. comply with all safety requirements?		

FEEDBACK: Trainer/Certifier should provide both positive and/or negative feedback to the trainee immediately after the task is performed. This will ensure the issue is still fresh in the mind of both the trainee and trainer/certifier.

WATER DISTRIBUTOR

PERFORM OPERATIONS SUCH AS:

MODULE 18 **AFQTP UNIT 2**

GRAVITY FEED (18.2.3.1.)

PRESSURE SPRAY (18.2.3.2.)

Notice. This AFQTP is *NOT* intended to replace the applicable technical references nor is it intended to replace hands-on training. It is to be used in conjunction with these for training purposes only.

PERFORM OPERATIONS SUCH AS GRAVITY FEED AND PRESSURE SPRAY

Task Training Guide

STS Reference Number/Title:	18.2.3.1. - Perform operations such as gravity feed. 18.2.3.2. - Perform operations such as pressure spray.
Training References:	1. Career Development Course (CDC) Pavements and Construction Equipment Operator Journeyman 3E251B, Volume 1; Unit 1, Section 1-5, Lesson 009; *Water Distributor Operations.* 2. Technical Order (TO) 36C5-3-23-41, *Truck, Tank 1500 Gallon; 6 X 4, Water Distributor.* 3. Air Force Joint Manual (AFJMAN) 24-306, Manual for the Wheeled Vehicle Driver. 4. AF Form 1806, *Operator's Inspection Guide and Trouble Report (Aircraft Towing, Base Maintenance Deicers, High Reach and Snow Removal).* 5. Owner's manual. 6. Local procedures.
Prerequisites:	1. **Possess a minimum of a 3E231 AFSC.** 2. **Possess AF Form 171,** *Request for Driver's Training and Addition to U.S. Governments Driving License.* 3. **Review the following references:** 3.1. CDC Pavements and Construction Equipment Operator Journeyman 3E251B, Volume 1, Unit 1, Section 1-5, Lesson 009. 3.2. TO 36C5-3-23-41. 3.3. AFJMAN 24-306, Chapter 1, page 1-6; *Driver Responsibilities* and Chapter 15, page 15-1; *Inspections.* 3.4. AF Form 1806. 3.5. Owner's manual. 3.6. Local procedures. 4. **Complete AFQTP Module 18, Unit 2: Operational Checks (18.2.1.) and Fill From Hydrant (18.2.3.3.) before starting these tasks.**
Equipment/Tools Required:	1. Water distributor. 2. Personal safety equipment. 3. AF Form 1806. 4. Water source.
Learning Objective:	The trainee will be able to properly operate the gravity and pressure feed systems on a water distributor.
Samples of Behavior:	The trainee will demonstrate how to utilize the gravity and pressure feed system on a water distributor.
Notes:	
1. This area is **optional** and available to use as a lesson plan when training on this non-core task. 2. Personnel are **required** to wear all *personal protective equipment* pertaining to each task (i.e. work gloves, hearing protection, and safety goggles). 3. Any safety violation is an **automatic failure**.	

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PERFORM OPERATIONS SUCH AS GRAVITY FEED AND PRESSURE SPRAY

1. Background. The gravity feed and pressure spray systems of a water truck are two functions of the spray bar. When the spray bar is utilized with added pressure from the rear engine and water pump, it is called pressure spray. Gravity feed is exactly as it implies, water is forced through the spray bar from the natural weight of the water. During construction, the water truck is used to add moisture when compacting fill material and controlling dust on roads. The water truck is also used as an auxiliary fire truck. At the end of the duty day, the tank should be drained to reduce the possibility of rust build up and water freezing in the pipes. Once completely drained, all valves should be placed in the closed position.

NOTE TO TRAINER/CERTIFIER:

If water truck spray project is not available, the following is the minimum required for these tasks: have the trainee fill the truck and demonstrate the proper gravity and pressure spray techniques over any area at least 100 yards long.

2. Operating Procedures. Follow these steps to perform the following tasks:

2.1. Gravity Feed.

NOTE:

Please read and follow manufactures directions for your particular model of water distributor. The following information is based on most common type of water distributors.

SAFETY:

THIS IS A TWO-PERSON OPERATION. ALWAYS USE A SPOTTER WHEN BACKING UP.

Step 1: Perform an operational inspection. (See Module 3E2X1-18, Unit 2; Operational Checks for details.)

Step 1. Start Application.

1.1. Open main tank valve.

1.2. Open spray bar valve.

1.3. Place truck in motion.

Step 2: Stop Application.

2.1. Stop truck.

2.2. Close spray bar valve.

2.3. Close main tank valve.

2.2. Pressure Spray.

NOTE:
Please read and follow manufactures directions for your particular model of water distributor. The following information is based on most common type of water distributors.

Step 1: Start Application.

1.1. Start the auxiliary engine.

1.2. Close spray bar valve.

1.3. Open main tank valve.

NOTE:
Some models require the water pump to be primed before spray operations can occur. Refer to owner's manual before attempting to spray.

1.4. Select desired auxiliary engine speed.

1.5. Place truck in motion.

1.6. Open supply valve and start spraying.

Step 2: Stop Application

2.1. Close main supply valve.

2.2. Stop truck.

2.3. Throttle auxiliary engine down.

2.4. Close main tank valve.

REVIEW QUESTIONS
FOR
PERFORM OPERATIONS SUCH AS GRAVITY FEED AND PRESSURE SPRAY

QUESTION	ANSWER
1. The gravity feed and pressure spray is two functions of the water truck.	a. True. b. False.
2. When the spray bar is utilized with added pressure from the rear engine and _____, it is called pressure spray.	a. water spray pump b. coolant pump c. water pump d. spray bar pump
3. In construction, the spray bar is used to add moisture for compacting fill material and controlling _____on roads.	a. gravel b. seepage c. drainage d. dust
4. A step in the gravity feed process is to keep the truck immobile and perfectly level.	a. True. b. False.
5. To shut down the pressure spray, throttle the engine up.	a. True. b. False.

PERFORM OPERATIONS SUCH AS GRAVITY FEED AND PRESSURE SPRAY

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must satisfactorily perform all parts of the task without assistance. Evaluate the trainee's performance using this checklist.

DID THE TRAINEE….	YES	NO
1. perform an operational inspection by utilizing AF Form 1806? (Refer to Unit 2, Perform Operational Checks.)		
2. sign AF Form 1806?		
Gravity Feed		
1. open main tank valve?		
2. open spray bar valve?		
3. place truck in motion?		
4. stop truck?		
5. close main tank valve?		
6. comply with all safety requirements?		
Pressure Spray		
1. start auxiliary engine?		
2. close spray bar valve?		
3. open main tank valve?		
4. select desired auxiliary engine speed?		
5. place truck in motion?		
6. open supply valve and started spraying?		
7. for shutdown: 7.1. close main supply valve? 7.2. stop truck? 7.3. throttle auxiliary engine down? 7.4. close main tank valve?		
8. comply with all safety requirements?		

FEEDBACK: Trainer/Certifier should provide both positive and/or negative feedback to the trainee immediately after the task is performed. This will ensure the issue is still fresh in the mind of both the trainee and trainer/certifier.

WATER DISTRIBUTOR

PERFORM OPERATIONS SUCH AS:

MODULE 18 **AFQTP UNIT 2**

FILL FROM HYDRANT (18.2.3.3.)

Notice. This AFQTP is *NOT* intended to replace the applicable technical references nor is it intended to replace hands-on training. It is to be used in conjunction with these for training purposes only.

PERFORM OPERATIONS SUCH AS FILL FROM HYDRANT

Task Training Guide

STS Reference Number/Title:	18.2.3.3. – Perform operations such as fill (water distributor) from hydrant.
Training References:	1. Career Development Course (CDC) Pavements and Construction Equipment Operator Journeyman 3E251B, Volume 1; Unit 1, Section 1-5, Lesson 009; *Water Distributor Operations.* 2. Technical Order (TO) 36C5-3-23-41, *Truck, Tank 1500 Gallon; 6 X 4, Water Distributor.* 3. Air Force Joint Manual (AFJMAN) 24-306, Manual for the Wheeled Vehicle Driver. 4. AF Form 1806, *Operator's Inspection Guide and Trouble Report (Aircraft Towing, Base Maintenance Deicers, High Reach and Snow Removal).* 5. Owner's manual. 6. Local procedures.
Prerequisites:	1. **Possess a minimum of a 3E231 AFSC.** 2. **Possess AF Form 171,** *Request for Driver's Training and Addition to U.S. Governments Driving License.* 3. **Review the following references:** 3.1. CDC Pavements and Construction Equipment Operator Journeyman 3E251B, Volume 1, Unit 1, Section 1-5, Lesson 009. 3.2. TO 36C5-3-23-41. 3.3. AFJMAN 24-306, Chapter 1, page 1-6; *Driver Responsibilities* and Chapter 15, page 15-1; *Inspections.* 3.4. AF Form 1806. 3.5. Owner's manual. 3.6. Local procedures.
Equipment/Tools Required:	1. Water distributor. 2. Personal safety equipment. 3. AF Form 1806. 4. Water source. 5. Fire hydrant. 6. Fire hose.
Learning Objective:	The trainee will be able to properly fill a water distributor from a hydrant.
Samples of Behavior:	The trainee will demonstrate how to fill a water distributor from a hydrant.
Notes:	
1. This area is **optional** and available to use as a lesson plan when training on this non-core task. 2. Personnel are **required** to wear all *personal protective equipment* pertaining to each task (i.e. work gloves, hearing protection, and safety goggles). 3. Any safety violation is an **automatic failure**.	

Notice. This AFQTP is *NOT* intended to replace the applicable technical references nor is it intended to replace hands-on training. It is to be used in conjunction with these for training purposes only.

PERFORM OPERATIONS SUCH AS FILL FROM HYDRANT

1. Background. There are multiple ways to fill a water distributor. One such way is to use a suction pump to draw water from a water source such as a lake or stream. Another way is by pulling the truck under a pre-positioned overhead hose, called a water stand or a water station, and turning the water supply on. But, the most common way to fill a water distributor is directly from a hydrant.

NOTE TO TRAINER/CERTIFIER:

If a fill from hydrant project is not available, the following is the minimum required for these tasks: have the trainee fill the water tank to at least one half capacity.

2. Fill Procedures. Follow these steps to perform this task:

SAFETY:

THIS IS A TWO-PERSON OPERATION. NEVER BACK UP WITHOUT USING A SPOTTER. USE CAUTION CLIMBING STEPS AND WATER TANK SURFACES MAY BECOME WET.

Step 1: Perform an operational inspection. (See Module 3E2X1-18, Unit 2; Operational Checks for details.)

Step 2: Remove hydrant cap and connect fire hose to hydrant.

Step 3: Open access cover on top of water tank.

Step 4: Place hose in access opening, allow extra hose to fit down inside of tank.

SAFETY:

IT IS EXTREMELY IMPORTANT TO SECURE THE HOSE TO THE ACCESS COVER. IF HOSE IS NOT SECURED IT WILL COME LOOSE AND WHIP IN ALL DIRECTIONS. DAMAGE OR INJURY MAY RESULT!

Step 5: Ensure all the valves on the distributor are closed.

Step 6: Slowly open fire hydrant with an approved hydrant wrench.

NOTE:

Hydrants utilize a weeping valve system. If you do not open the valve all the way water will appear to come up from the base of the hydrant as if it were broke. It is not broke this is normal for hydrants.

Step 7: Close fire hydrant when finished.

Step 8: Disconnect and secure hose.

Step 9: Replace hydrant cap.

Step 10: Close and secure access cover.

REVIEW QUESTIONS
FOR
PERFORM OPERATIONS SUCH AS FILL FROM HYDRANT

QUESTION	ANSWER
1. There is only one way to fill a water distributor.	a. True. b. False.
2. The most common way to fill a water distributor is directly from the hydrant.	a. True. b. False.
3. After filling the tank from a fire hydrant, the hydrant valve may be left open and the water allowed to flow into the drainage system	a. True. b. False.
4. Open and close the fire hydrant with _____ wrench.	a. crescent b. vise grip c. hydrant d. monkey

PERFORM OPERATIONS SUCH AS FILL FROM HYDRANT

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must satisfactorily perform all parts of the task without assistance. Evaluate the trainee's performance using this checklist.

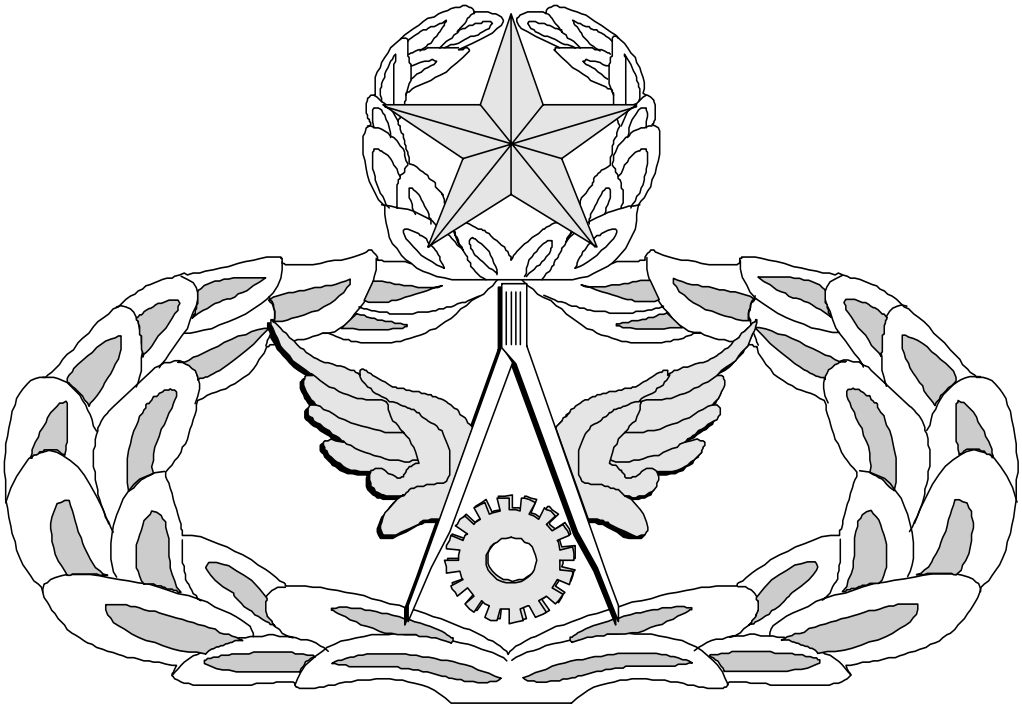
DID THE TRAINEE….	YES	NO
1. perform an operational inspection by utilizing AF Form 1806? (Refer to Unit 2, Perform Operational Checks.)		
2. sign AF Form 1806?		
3. connect fire hose to hydrant?		
4. open access cover?		
5. place hose in access opening?		
6. secure hose in access opening?		
7. ensure all valves on the distributor were closed?		
8. open fire hydrant valve?		
9. close fire hydrant valve when finished?		
10. disconnect and secure hose?		
11. close and secure access cover?		
12. comply with all safety requirements?		

FEEDBACK: Trainer/Certifier should provide both positive and/or negative feedback to the trainee immediately after the task is performed. This will ensure the issue is still fresh in the mind of both the trainee and trainer/certifier.

Air Force Civil Engineer

QUALIFICATION TRAINING PACKAGE (QTP)

REVIEW ANSWER KEY



FOR

PAVEMENTS & CONSTRUCTION EQUIPMENT OPERATOR

(3E2X1)

MODULE 18

LIQUID MATERIALS DISTRIBUTORS

Notice. This AFQTP is *NOT* intended to replace the applicable technical references nor is it intended to replace hands-on training. It is to be used in conjunction with these for training purposes only.

PERFORM OPERATIONAL CHECKS
(3E2X1-18.2.1.)

QUESTION	ANSWER
1. Check wheels and tires for _____.	d. All the above.
2. Before you operate any piece of equipment, you must inspect it for _____.	a. signs of damage or possible defects.
3. You must use a checklist to do your inspections. The one you will use most often with heavy equipment is the _____.	c. AF Form 1806.
4. Walk-around inspections only include detecting leaks, broken or missing items, and flat tires.	b. False.
5. Which of the following items is not unique to the water truck?	c. Water bucket.

PERFORM OPERATOR MAINTENANCE
(3E2X1-18.2.2.3.)

QUESTION	ANSWER
1. Why is cleaning an important part of vehicle maintenance?	c. Enables you to find lubrication points from the lube charts.
2. Lubrication should be accomplished on the same schedule no matter what conditions the equipment is operated in.	b. False.
3. Why should you refuel the vehicle at the end of the day?	b. To prevent condensation inside the fuel tank.
4. You should perform a post operational inspection?	a. True.

PERFORM OPERATIONS SUCH AS GRAVITY FEED AND PRESSURE SPRAY (3E2X1-18.2.3.1. / 18.2.3.2.)

QUESTION	ANSWER
1. The gravity feed and pressure spray is both functions of the spray bar.	b. True.
2. When the spray bar is utilized with added pressure from the rear engine and _____, it is called pressure spray	c. water pump
3. In construction, the spray bar is used to add moisture for compacting fill material and controlling _____on roads	d. dust
4. A step in the gravity feed process is to keep the truck immobile and perfectly level.	b. False.
5. To shut down the pressure spray, throttle the engine up.	c. False.

PERFORM OPERATIONS SUCH AS FILL FROM HYDRANT (3E2X1-18.2.2.3.)

QUESTION	ANSWER
1. There is only one way to fill a water distributor.	b. False.
2. The most common way to fill a water distributor is directly from the hydrant.	a. True.
3. After filling the tank from a fire hydrant, the hydrant valve may be left open and the water allowed to flow into the drainage system	b. False.
4. Open and close the fire hydrant with _____ wrench.	d. hydrant

MEMORANDUM FOR HQ AFCESA/CEOF
139 Barnes Drive Suite 1
Tyndall AFB, FL 32403-5319

FROM:

SUBJECT: Qualification Training Package Improvement

1. Identify module.

   Module # and title_____

2. Identify improvement/correction section(s):

   _____ STS Task Reference
   _____ Training Reference
   _____ Evaluation Instructions
   _____ Performance Resources
   _____ Steps in Task Performance
   _____ Performance Checklist
   _____ Feedback
   _____ Format
   _____ Other

3. Recommended changes--use a continuation sheet if necessary.

   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____
   _____

4. You may choose to call in your recommendations to DSN 523-6074 or FAX DSN/Commercial 523-6488 or (850) 283-6488 or email ceof.helpdesk@tyndall.af.mil.

5. Thank you for your time and interest.

YOUR NAME, RANK, USAF
Title/Position